



Lincoln Lancaster County Health Department
3140 "N" Street
Lincoln, Nebraska 68510
(402) 441-6280

GUIDE TO FOOD ESTABLISHMENT DESIGN

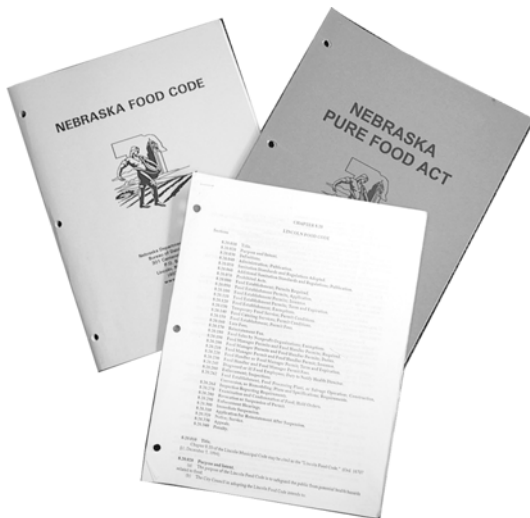


Table of Contents

Introduction

Permit Process

I. Finish Schedule

A. Floors

B. Walls

C. Ceiling

II. Electrical and Lighting

III. Plumbing

A. Water Supply

B. Hot Water Requirements

C. Backflow Control

D. Sewage Disposal

E. Grease Interceptor

F. 3-Compartment Sinks

G. Dishwashing Machines

IV. Mechanical

A. Ventilation

B. Exhaust Hood

V. Handwashing Facilities

VI. Toilet Rooms

VII. Dressing and Locker Rooms

VIII. Garbage, Refuse, and Recyclables

IX. Food Equipment Design and Installation

X. Dry Goods Storage

XI. Chemical Storage

XII. Janitorial Stations

XIII. Laundry Facility

Permit Process

1. Obtain a Level IV Food Managers Permit (required prior to opening)
2. Submit Plans to Building & Safety
3. Obtain Plan Review Guide and Checklist from LLCHD
4. Obtain Building Permit(s)
5. Begin Building or Remodeling
6. Schedule a Preliminary Inspection by LLCHD
7. Obtain Final Approvals and Certificate of Occupancy Permit from Building & Safety
8. Schedule and Pass Final Inspection by LLCHD
9. Submit Fees and Applications for Food Licenses at Final Inspection
10. Begin Operating Food Establishment
11. Obtain all employee Food Handler Permits within 30 days of open

Introduction

This manual is for architects, building contractors, food service equipment dealers, food service operators, consultants and other interested professionals. The purpose of this manual is to help in the development of plans to meet the standards of the Lincoln Lancaster County Health Department.

This guide states the minimum physical necessities for a new or remodeled restaurant, deli, tavern, or other food establishment. It is not an exhaustive list of the sanitation requirements and does not cover issues related to zoning, planning, building, fire and many other requirements. This is a guide only. More extensive information may be required for your proposed operation.

The **LINCOLN FOOD CODE** (Lincoln Municipal Code, Chapter 8.20) requires that plans be submitted for review when a food establishment is constructed or extensively remodeled. All construction must conform to standards set forth in the **NEBRASKA DEPARTMENT OF AGRICULTURE REQUIREMENTS FOR FOOD ESTABLISHMENTS IN NEBRASKA** as adopted by reference pursuant to Nebraska Revised Statutes, section 81-2,257.01 Nebraska Food Code. A copy of this code is available upon request and is highly recommended reading before developing your restaurant plans.

There is no cost to you for the LLCHD plan review, other than the cost of the permit, after the facility passes final inspection.

This document is intended to assist you in filling out the **FOOD FACILITY DESIGN AND CONSTRUCTION CHECKLIST**. Its contents are arranged in the same order as the checklist.

This process is set up as a self-diagnostic plan review. It is hoped that the plan review process will help to correct any problems during the design stage of the project. Following the guidelines will help to eliminate complications and possible delays when it is time for final inspection of your facility.

LMC 8.20.262 Food Establishment, Food Processing Plant, or Salvage Operation; Construction, Conversion, or Remodeling; Plans and Specifications; Requirements.

Prior to construction of, conversion to, or remodeling of a food establishment, food processing plant, or salvage operation, properly prepared plans and specifications for such construction, conversion, or remodeling shall be submitted to the Health Director for review and approval. The plans and specifications shall indicate the proposed layout, arrangement, mechanical plans, construction materials of work areas, type and model of proposed fixed equipment and facilities, and description of the type of food to be served or sold. Information submitted for review that the applicant designates as "confidential" and that is not submitted to other city departments or otherwise a public record under applicable law shall be treated by the Health Director as records that contain material that may be exempt from disclosure under Neb. Rev. Stat. § 84-712.05(3), because disclosure could reasonably be expected to give advantage to business competitors and serve no public purpose. The Health Director's acceptance of such information shall neither constitute, nor be construed as an agreement or acquiescence by the Health Director that the designation is necessary, appropriate, or justified in any way. If any party requests the Health Director to disclose the information or brings suit seeking to compel disclosure of the information, the Health Director's sole obligation hereunder is to promptly notify the applicant of the request. The Health Director shall review and approve the plans and specifications according to the requirements of the Lincoln Food Code. No food establishment, food processing plant, or salvage operation shall be constructed, converted, or remodeled except in accordance with plans and specifications approved by the Health Director. (Ord.17476 §15; March 1, 1999).

Please remember that your food facility will not be issued a permit to operate until all State of Nebraska and LLCHD codes are met. Please help us to help you have a smooth opening by providing as much information at the planning stage as possible.

This **LLCHD GUIDE TO FOOD ESTABLISHMENT DESIGN** is provided to assist you in selecting the proper equipment to meet the needs of your business. Our objective is for you to create a food service facility that is easy to maintain, has efficient food flow patterns, and is set up to handle the maximum number of customers.

The layout and design of the plans are to be based on HACCP (Hazard Analysis Critical Control Point) quality assurance concepts. An excellent way to begin a self-assessment of your needs is to first determine the menu you plan to provide your customers, and then to utilize this menu to list the specific steps in the food preparation process for each menu item, which generally include:

- defining whether specific food items are potentially hazardous
- determining how food items are received into your facility
- deciding the storage method and length of time food items are to be stored prior to preparation
- reviewing how foods are to be prepared (e.g., cooked to order, as opposed to prepared in advance of order), including an assessment of necessary cooking, cooling, and holding methods
- determining the extent of necessary hand contact by food preparation workers during the preparation and serving stages
- ensuring that all food items are maintained at proper temperatures throughout these processes until service.

Keeping these specific needs in mind as you read the various sections of this guide will allow you to design an establishment layout that will meet your needs, as well as meeting the requirements of applicable regulations. Our goal is to provide you with helpful information that will enable you to design the best food service facility possible. Lincoln and the surrounding local municipalities in Lancaster County have building, zoning, mechanical, electrical, plumbing and fire protection requirements. You should contact these other agencies before construction, for information on their regulations.

Should you have any questions during the planning or construction process, please contact your area Registered Environmental Health Specialist at LLCHD, (402) 441-6280.

**NEBRASKA FOOD CODE,
Revised April, 2003**

6-101.11 Surface Characteristics.

(A) Except as specified in ¶ (B) of this section, materials for indoor floor, wall, and ceiling surfaces under conditions of normal use shall be:

(1) Smooth, durable, and easily cleanable for areas where food establishment operations are conducted;

(2) Closely woven and easily cleanable carpet for carpeted areas; and

(3) Nonabsorbent for areas subject to moisture such as food preparation areas, walk-in refrigerators, warewashing areas, toilet rooms, mobile food establishment servicing areas, and areas subject to flushing or spray cleaning methods.

6-201.13 Floor and Wall Junctures, Coved, and Enclosed or Sealed.

(A) In food establishments in which cleaning methods other than water flushing are used for cleaning floors, the floor and wall junctures shall be coved and closed to no larger than 1 mm (one thirty-second inch).

(B) The floors in food establishments in which water flush cleaning methods are used shall be provided with drains and be graded to drain, and the floor and wall junctures shall be covered and sealed.

6-201.14 Floor Carpeting, Restrictions and Installation.

(A) A floor covering such as carpeting or similar material may not be installed as a floor covering in food preparation areas, walk-in refrigerators, warewashing areas, toilet room areas where handwashing lavatories, toilets, and urinals are located, refuse storage rooms, or other areas where the floor is subject to moisture, flushing, or spray cleaning methods.

(B) If carpeting is installed as a floor covering in areas other than those specified under ¶ (A) of this section, it shall be:

(1) Securely attached to the floor with a durable mastic, by using a stretch and tack method, or by another method; and

(2) Installed tightly against the wall under the coving or installed away from the wall with a space between the carpet and the wall and with the edges of the carpet secured by metal stripping or some other means.

Floors

In food/beverage preparation areas, food storage areas, utensil-washing areas, walk-in refrigeration units, restrooms, refuse or garbage storage areas, and janitorial facilities, floor finishes shall be an approved type that continues up the wall partitions, toe-kicks, or cabinetry at least four (4) inches, forming a 3/8 inch minimum radius **cove** as an integral unit.

Acceptable flooring material is durable, light-colored, waterproof, grease-resistant and easily cleanable material. Surfaces shall be maintained in good repair.

Ceramic and **quarry tile** floors are preferred because of their durability. **Grouting** should be non-absorbent and impregnated with epoxy, silicone or polyurethane.

Seamless floors are possible using clear epoxy resins and stone aggregates combinations. The materials used for these floors or any poured monolithic floors, should be approved by LLCHD before installation.

Commercial grade vinyl composition tile (**VCT**) flooring is the minimum grade material acceptable, but is not recommended in wet locations or high load applications due to its tendency to separate, buckle and fragment. Water based adhesives have not been very effective at securing floor tiles to the substrate.

100% homogenous vinyl flooring (**sheet vinyl**), is not recommended, and may only be used if the manufacturer specifies it for use in commercial kitchens. This type of flooring should be approved by LLCHD before installation.

Carpet is not permitted for floor construction in the above areas. In most cases, **sealed concrete**, and **wood** are not acceptable for use in the above areas. Specific applications of these materials may be acceptable if submitted to LLCHD for approved prior to installation, and sealants are USDA approved.

Floor surfaces, which contain **non-skid** agents, shall be restricted to traffic areas only. High-pressure cleaning systems are required in addition to floor drains if this Department deems the degree of roughness of the non-skid agent excessive upon evaluation.

The use of **diamond-plate** steel or corrosion-resistant aluminum as flooring under beer kegs, or where durability is essential, is highly recommended.

Stainless steel or **aluminum** are preferred floor materials for walk-in coolers, freezers, and bakery equipment. **Galvanized** metal flooring is not acceptable due to corrosion. All walk-in refrigeration units, both with prefabricated floors and without, should be installed according to NSF standards.

Properly installed, trapped **floor drains** are required in floors that are water-flushed for cleaning, and/or where pressure spray methods for cleaning equipment are used. Where floor drains are utilized, the floor surface shall be sloped to the floor drains it is recommended that the slope be at least 1/8" per foot.

Concrete sealants may be used in dry storage and low abrasion traffic areas. These sealants should penetrate and bond with the cement during curing.

6-101.11 Surface Characteristics.

(A) Except as specified in ¶ (B) of this section, materials for indoor floor, wall, and ceiling surfaces under conditions of normal use shall be:

(1) Smooth, durable, and easily cleanable for areas where food establishment operations are conducted;

(2) Closely woven and easily cleanable carpet for carpeted areas; and

(3) Nonabsorbent for areas subject to moisture such as food preparation areas, walk-in refrigerators, warewashing areas, toilet rooms, mobile food establishment servicing areas, and areas subject to flushing or spray cleaning methods.

6-201.16 Wall and Ceiling Coverings and Coatings.

(A) Wall and ceiling covering materials shall be attached so that they are easily cleanable.

(B) Except in areas used only for dry storage, concrete, porous blocks, or bricks used for indoor wall construction shall be finished and sealed to provide a smooth, nonabsorbent, easily cleanable surface.

6-201.18 Walls and Ceilings, Studs, Joists, and Rafters.

Studs, joists, and rafters may not be exposed in areas subject to moisture. This requirement does not apply to temporary food establishments.

6-201.17 Walls and Ceilings, Attachments.

(A) Except as specified in ¶ (B) of this section, attachments to walls and ceilings such as light fixtures, mechanical room ventilation system components, vent covers, wall mounted fans, decorative items, and other attachments shall be easily cleanable.

(B) In a consumer area, wall and ceiling surfaces and decorative items and attachments that are provided for ambiance need not meet this requirement if they are kept clean.

Walls

In food/beverage handling and preparation areas, utensil washing areas, walk-in refrigeration units, and restrooms, refuse or garbage storage areas, and janitorial facilities, sheetrock or similar type walls are to be covered with rigid, high density materials, that are non-absorbent, corrosion resistant, smooth, light in color, and capable of withstanding repeated washing.

Acceptable wall covering materials include fiberglass reinforced plastic (FRP) panels, **ceramic tile**, **quarry tile**, and **stainless steel**. Alternate wall surface materials are subject to evaluation and may require submission of samples.

Marlite, **particle board**, **fiber board**, **chipboard**, **grooved paneling**, **textured or rough plaster drywall**, **wood**, **brick**, **concrete block**, **rough concrete**, **wall paper**, or **vinyl wall covering**, are not acceptable for wall construction or covering in the above areas.

Oil-based epoxy paints are appropriate in food preparation areas. **High-gloss enamel** paints work well in most other areas. When painting, concrete block walls need to have the porous face of this material filled and painted with at least a semi-gloss or higher finish and drywall must have **primer** and at least two coats of enamel paint with a **semi-gloss** or higher finish. We recommend stainless steel corner guards in high-traffic areas.

If tile is used, **grouting** must be non-absorbent and impregnated with epoxy, silicone, polyurethane or an equivalent compound. All mortar joints shall be only slightly tooled and suitably finished to render them easily cleanable.

Walls in **dry storage areas** shall be painted with oil-based enamel or epoxy paint if no open food is present. Areas constructed of smooth brick, concrete, block, or similar masonry may be painted as stated above.

Studs, joists and rafters shall not be exposed in walk-in refrigeration units, food preparation areas, equipment washing and utensil washing areas, toilet rooms and vestibules. Where permitted to be exposed, studs, joists and rafters must be finished to provide an easily cleanable surface.

Walls behind areas where there is likely to be extensive amounts of moisture, splash or splatter of food debris, or where damage from frequent contact with kitchen utensils or equipment is possible (such as clean utensil storage areas), will need to have wall covering materials installed that are more durable than simple drywall finishes (i.e., stainless steel or FRP panels).

**NEBRASKA FOOD CODE,
Revised April, 2003**

6-101.11 Surface Characteristics.

(A) Except as specified in ¶ (B) of this section, materials for indoor floor, wall, and ceiling surfaces under conditions of normal use shall be:

(1) Smooth, durable, and easily cleanable for areas where food establishment operations are conducted;

(2) Closely woven and easily cleanable carpet for carpeted areas; and

(3) Nonabsorbent for areas subject to moisture such as food preparation areas, walk-in refrigerators, warewashing areas, toilet rooms, mobile food establishment servicing areas, and areas subject to flushing or spray cleaning methods.

6-201.16 Wall and Ceiling Coverings and Coatings.

(A) Wall and ceiling covering materials shall be attached so that they are easily cleanable.

(B) Except in areas used only for dry storage, concrete, porous blocks, or bricks used for indoor wall construction shall be finished and sealed to provide a smooth, nonabsorbent, easily cleanable surface.

6-201.17 Walls and Ceilings, Attachments.

(A) Except as specified in ¶ (B) of this section, attachments to walls and ceilings such as light fixtures, mechanical room ventilation system components, vent covers, wall mounted fans, decorative items, and other attachments shall be easily cleanable.

(B) In a consumer area, wall and ceiling surfaces and decorative items and attachments that are provided for ambiance need not meet this requirement if they are kept clean.

6-201.18 Walls and Ceilings, Studs, Joists, and Rafters.

Studs, joists, and rafters may not be exposed in areas subject to moisture. This requirement does not apply to temporary food establishments.

Ceilings

In food/beverage preparation areas, food storage areas, utensil-washing areas, walk-in refrigeration units, restrooms, refuse or garbage storage areas, and janitorial facilities, ceiling finishes shall be constructed of smooth, non-absorbent and easily cleanable materials that are durable and light in color.

A ceiling should have an even or level surface with no roughness or projections that render it difficult to clean. Fill or close any holes or gaps along the ceiling to limit pest movement or harborage.

Acceptable ceiling finishes include, but are not limited to, smooth, non-fissured, vinyl-clad gypsum board for suspended ceilings, or smooth painted drywall with a washable epoxy or enamel finish.

Textured or sprayed drywall, acoustical-type tiles or panels, perforated tiles or panels, grated tiles, panels or light covers, exposed studs or rafters, or other rough surfaces are not acceptable, and should not be used in the areas listed above.

**NEBRASKA FOOD CODE,
Revised April, 2003**

6-201.12 Floors, Walls, and Ceilings, Utility Lines.

(A) Utility service lines and pipes may not be unnecessarily exposed.

(B) Exposed utility service lines and pipes shall be installed so they do not obstruct or prevent cleaning of the floors, walls, or ceilings.

(C) Exposed horizontal utility service lines and pipes may not be installed on the floor.

6-202.11 Light Bulbs, Protective Shielding.

(A) Except as specified in ¶ (B) of this section, light bulbs shall be shielded, coated, or otherwise shatter-resistant in areas where there is exposed food; clean equipment, utensils, and linens; or unwrapped single-service and single-use articles.

(B) Shielded, coated, or otherwise shatter-resistant bulbs need not be used in areas used only for storing food in unopened packages, if:

(1) The integrity of the packages can not be affected by broken glass falling onto them; and

(2) The packages are capable of being cleaned of debris from broken bulbs before the packages are opened.

(C) An infrared or other heat lamp shall be protected against breakage by a shield surrounding and extending beyond the bulb so that only the face of the bulb is exposed.

6-303.11 Intensity.

The light intensity shall be:

(A) At least 110 lux (10 foot candles) at a distance of 75 cm (30 inches) above the floor, in walk-in refrigeration units and dry food storage areas; and in other areas and rooms during periods of cleaning,

(B) At least 220 lux (20 foot candles):

(1) At a surface where food is provided for consumer self-service such as buffets and salad bars or where fresh produce or packaged foods are sold or offered for consumption;

(2) Inside equipment such as reach-in and under-counter refrigerators;

(3) At a distance of 75 cm (30 inches) above the floor in areas used for handwashing, warewashing, and equipment and utensil storage, and in toilet rooms; and

(C) At least 540 lux (50 foot candles) at a surface where a food employee is working with food or working with utensils or equipment such as knives, slicers, grinders, or saws where employee safety is a factor.

Electrical and Lighting

ELECTRICAL:

All electrical lines should be concealed within the building structure to as great an extent as possible or encased in an approved sealed containment.

Where this is not possible to conceal conduit, such as on cement block walls during remodels, all runs shall be at least 1/2 inch away from the walls or ceiling and six (6) inches off the floor. Avoid exposed horizontal runs of conduit, as they collect dust and debris, and are often neglected by cleaning crews for fear of being shocked.

Where conduit or pipe lines enter a wall, ceiling or floor, the opening around the line shall be tightly sealed in order to take away pest hiding places and passageways. Pipes passing through exterior walls may need to have gaps over 1/4 inch covered with metal flashing in addition to being caulked, in order to prevent rodent entry.

Extension cords, conduits or pipe lines shall not be installed across any aisle, traffic area or door opening.

LIGHTING:

Food service facilities need to be well lit for both safety and cleanliness reasons. The light intensity requirements listed below are to be measured 30 inches from the floor with a light meter.

50 footcandles - In all food preparation areas and where safety is a factor, such as near processing equipment.

20 footcandles - In all warewashing areas, utensil storage areas, toilet rooms, retail sales areas of grocery stores, and salad bars.

10 footcandles - In all parts of refrigerated and dry food storage areas, and in other areas during periods of cleaning.

Darker colored walls and floors may require additional lighting. Dimmer switches may be a suitable alternative for use in bars and dining areas to increase lighting during cleaning times.

In refrigerated walk-in units, use incandescent lighting or install fluorescent lights with cold-tolerant ballasts and vapor-proof fixtures. Install lights so that lighting will not be obstructed by food stored on shelves.

Light bulbs or fluorescent tubes in areas where food is prepared, open food is stored or displayed, or where utensils are cleaned and stored, shall be of coated, shatterproof construction. Alternatively, light fixtures may be protected with shatterproof shields or lens covers. Fluorescent lighting not inside fixtures with lens covers need plastic sleeves with end caps installed. Light shields made of open wire framing are not approved.

Heat lamps, where permitted, shall be protected against breakage by a shield surrounding and extending beyond the bulb, leaving only the face of the bulb exposed.

**NEBRASKA FOOD CODE,
Revised April, 2003**

5-101.11 APPROVED System.*

Drinking water shall be obtained from an approved source that is:

- (A) A public water system; or
- (B) A nonpublic water system that is constructed, maintained, and operated according to law.

5-101.12 System Flushing and Disinfection.*

A drinking water system shall be flushed and disinfected before being placed in service after construction, repair, or modification and after an emergency situation, such as a flood, that may introduce contaminants to the system.

5-101.13 Bottled Drinking Water.*

Bottled drinking water used or sold in a food establishment shall be obtained from approved sources in accordance with 21 CFR 129 - Processing and Bottling of Bottled drinking water.

5-102.11 Standards.*

Except as specified under § 5-102.12:

- (A) Water from a public water system shall meet 40 CFR 141 - National Primary Drinking Water Regulations and state drinking water quality standards; and
- (B) Water from a nonpublic water system shall meet state drinking water quality standards.

5-102.12 Nondrinking Water.*

- (A) A nondrinking water supply shall be used only if its use is approved.
- (B) Nondrinking water shall be used only for non-culinary purposes such as air conditioning, nonfood equipment cooling, fire protection, and irrigation.

5-102.13 Sampling.

Except when used as specified under § 5-102.12, water from a nonpublic water system shall be sampled and tested at least annually and as required by state water quality regulations.

5-102.14 Sample Report.

The most recent sample report for the nonpublic water system shall be retained on file in the food establishment or the report shall be maintained as specified by state water quality regulations.

5-103.11 Capacity.*

- (A) The water source and system shall be of sufficient capacity to meet the peak water demands of the food establishment.
- (B) Hot water generation and distribution systems shall be sufficient to meet the peak hot water demands throughout the food establishment.

Water Supply

Running water under pressure shall be provided in sufficient quantity to carry out all food preparation, utensil washing, hand washing, cleaning, and other water-using operations in a food service facility, and shall be provided from a source constructed and operated according to law.

See **Hot Water Requirements** for additional information.

Potable water from a public water supply is appropriate for the needs of a food service establishment. A public water system must meet the requirements of 40 CFR Part 141 National Primary Drinking Water Regulations.

Restaurants that wish to operate using a non-public water system must have approval from LLCHD prior to operation and be able to provide the most recent sample report on request.

The pumping and storage capacities, as well as the frequency of testing of a non-municipal water supply must comply with state and Federal guidelines.

Cross-connections with sewage lines; unapproved water supplies or other potential sources of contamination are prohibited. See **Backflow Control**.

Water purification systems and filters shall be installed and maintained according to manufacturer's specifications.

WATER USE DATA GUIDE (Suggested Formula)

Warewash sink	=50 gals. for a total fill 50 x 4 fills per day	= 200 gals. per day
Floor wash	=12 gals 12 x 3 fills per day	= 36 gals. per day
General Sanitation		= 30 gals. per day
Prep sink	=15 gals 15 x 2 fills per day	= 30 gals. per day
Personal Hygiene	=30 gals per employee 3 Full time employees 3 x 30 gals	= 90 gals per day
Dishmachine =	45 gals per fill 45 x 2 meal periods	= 90 gals. per day
Sample Total Daily Usage		= 476 gals. per day

**NEBRASKA FOOD CODE,
Revised April, 2003**

**4-204.116 Manual Warewashing equipment,
Heaters and Baskets.**

If hot water is used for sanitation in manual warewashing operations, the sanitizing compartment of the sink shall be:

- (A) Designed with an integral heating device that is capable of maintaining water at a temperature not less than 77°C (171°F); and
- (B) Provided with a rack or basket to allow complete immersion of equipment and utensils into the hot water.

4-501.110 Mechanical Warewashing Equipment, Wash Solution Temperature.

(A) The temperature of the wash solution in spray type warewashers that use hot water to sanitize may not be less than:

- (1) For a stationary rack, single temperature machine, 74°C (165°F);
- (2) For a stationary rack, dual temperature machine, 66°C (150°F);
- (3) For a single tank, conveyor, dual temperature machine, 71°C (160°F); or
- (4) For a multi-tank, conveyor, multi-temperature machine, 66°C (150°F).

(B) The temperature of the wash solution in spray-type warewashers that use chemicals to sanitize may not be less than 49°C (120°F).

4-501.111 Manual Warewashing Equipment, Hot Water Sanitation Temperatures.*

If immersion in hot water is used for sanitizing in a manual operation, the temperature of the water shall be maintained at 77° C (171° F) or above.

4-501.112 Mechanical Warewashing Equipment, Hot Water Sanitization Temperatures.

(A) Except as specified in ¶ (B) of this section, in a mechanical operation, the temperature of the fresh hot water sanitizing rinse as it enters the manifold may not be more than 90°C (194°F), or less than:

- (1) For a stationary rack, single temperature machine, 74°C (165°F); or
- (2) For all other machines, 82°C (180°F).

(B) The maximum temperature specified under ¶ (A) of this section, does not apply to the high pressure and temperature systems with wand-type, hand-held, spraying devices used for the in-place cleaning and sanitizing of equipment such as meat saws.

5-103.11 Capacity.*

(A) The water source and system shall be of sufficient capacity to meet the peak water demands of the food establishment.

(B) Hot water generation and distribution systems shall be sufficient to meet the peak hot water demands throughout the food establishment.

Hot Water Requirements

The hot water supply shall be sufficient to satisfy the continuous and peak hot water demands of the establishment. Hot water for handwashing shall be of a temperature of at least 110°F. Hot water for mechanical dishwashing must be 150°F-165°F for washing and 165°F-180°F for sanitizing. The temperature of the wash solution in spray-type warewashers that use chemicals to sanitize may not be less than 120°F. The water temperature for manual hot water sanitization must be at least 171°F. For purposes of sizing the hot water generating capability, assume a supply temperature requirement of 140°F to each fixture and to the mechanical dishwashing machines.

When possible, avoid placing fixtures long distances from the water heater. Piping insulation or point of use heaters may be needed to maintain hot water temperatures.

The following numbers may be used for determining the total per-hour peak demand of general purpose 140°F hot water for new or remodeled food service establishments and retail food establishments.

1. Warewashing Sinks (utensil, pot, glass, and bar sinks).

- a) Measure the length, width, and height of each of the sink's compartments to determine the total volume capacity of the sink(s).
- b) The following formula is used for determining the volume of hot water needed for the sink(s).

$$V = \frac{L \times W \times H \times C \times .5}{231}$$

- V = Volume (in gallons) of hot water needed
- L = Length of one sink's compartment in inches
- W = Width of one of the sink's compartments in inches
- H = Height of one of the sink's compartments in inches
- 231 = The number of cubic inches per gallon
- C = The number of compartments within the sink
- .5 = The percentage of 140°F water used in the sink

c) If all compartment sizes of the sink are not the same, then the calculation must be done for each compartment and the totals are then added to obtain the total gallon per hour of hot water needed.

2. Dishwashing Machines

Hot water rinse or chemical sanitizing *

3. Spray arm over garbage disposal 32 GPH

4. Dishwashing Conveyor Pre-Rinse *

5. Vegetable/Food Preparation Sink 15 GPH

6. Utensil Soak Sink 15 GPH

7. Lavatories 5 GPH

8. Mop Sink 5 GPH

9. Garbage Can Washer 35 GPH

10. Clothes Washer * 9-12 pounds 32 GPH
16 pounds 42 GPH

11. Employee Showers 15 GPH

*See manufacturer's rating in gallons per hour. (GPH)

To determine the total gallon per hour usage for the establishment, add the hot water usage (GPH) for items 1-11.

5-202.13 Backflow Prevention, Air Gap.*

An air gap between the water supply inlet and the flood level rim of the plumbing fixture, equipment, or non-food equipment shall be at least twice the diameter of the water supply inlet and may not be less than 25 mm (1 inch).

5-202.14 Backflow Prevention Device, Design Standard.

A backflow or backsiphonage prevention device installed on a water supply system shall meet American Society of Sanitary Engineers (A.S.S.E.) standards for construction, installation, maintenance, inspection, and testing for that specific application and type of device.

5-203.14 Backflow Prevention Device, When Required.*

A plumbing system shall be installed to preclude backflow of a solid, liquid, or gas contaminant into the water supply system at each point of use at the food establishment, including on a hose bibb if a hose is attached or on a hose bibb if a hose is not attached and backflow prevention is required by law, by:

- (A) Providing an air gap as specified under § 5-202.13; or
- (B) Installing an approved backflow prevention device as specified under § 5-202.14.

81-2,272.29 Backflow Prevention Device, Carbonator.*

A carbonating device or a beverage dispenser with an internal carbonator intended to be connected to a water supply system under pressure in a food establishment shall have an air gap as specified in the Nebraska Pure Food Act or a backflow prevention device as specified in the act and downstream from any copper in the water supply line.

5-204.12 Backflow Prevention Device, Location.

A backflow prevention device shall be located so that it may be serviced and maintained.

5-205.13 Scheduling Inspection and Service for a Water System Device.

A device such as a water treatment device or backflow preventer shall be scheduled for inspection and service, in accordance with manufacturer's instructions and as necessary to prevent device failure based on local water conditions, and records demonstrating inspection and service shall be maintained by the person in charge.

5-205.12 Prohibiting a Cross Connection.*

(A) Except as specified in 9 CFR 308.3(d) for firefighting, a person may not create a cross connection by connecting a pipe or conduit between the drinking water system and a nondrinking water system or a water system of unknown quality.

(B) The piping of a nondrinking water system shall be durably identified so that it is readily distinguishable from piping that carries drinking water

Backflow Control

Backflow or backsiphonage can occur in a plumbing system when a drop occurs in the water supply pressure. In order to prevent contaminants from flowing back into the building's piping and the municipal water supply, an air gap or an approved backflow prevention device shall be properly installed.

Air gaps are commonly used between a faucet and the flood level of a sink. This air gap shall be twice the diameter of the supply line, but not less than an inch.

The backflow protection must be upstream of any potential hazard between the potable water system and a source of contamination, i.e., all threaded water outlets, janitorial sinks, sprayers, dishwashers, coffee makers, espresso machines, etc.

Atmospheric vacuum breakers are required on mop sink valves and dish machine chemical supply water lines.

The most common installations for reduced pressure zone backflow prevention devices in food facilities are on water supplies to beverage carbonators, water-cooled compressors of ice machines, high pressure pumps or sprayers, and lines under constant pressure, such as trigger sprayers. These devices must be accessible and should be inspected annually by a licensed plumber.

**NEBRASKA FOOD CODE,
Revised April, 2003**

5-402.10 Establishment Drainage System.

Food establishment drainage systems, including grease traps, that convey sewage shall be designed and installed as specified under ¶ 5-202.11(A).

5-202.11 Approved System and Cleanable Fixtures.*

(A) A plumbing system shall be designed, constructed, and installed according to law.

(B) A plumbing fixture such as a handwashing facility, toilet, or urinal shall be easily cleanable.

5-402.12 Grease Trap.

If used, a grease trap shall be located to be easily accessible for cleaning, operation and maintenance.

5-402.13 Conveying Sewage.*

Sewage shall be conveyed to the point of disposal through an approved sanitary sewage system or other system, including use of sewage transport vehicles, waste retention tanks, pumps, pipes, hoses, and connections that are constructed, maintained, and operated according to law.

5-403.11 Approved Sewage Disposal System.*

Sewage shall be disposed through an approved facility that is:

(A) A public sewage treatment plant; or

(B) An individual sewage disposal system that is sized, constructed, maintained, and operated according to law.

5-403.12 Other Liquid Wastes and Rainwater.

Condensate drainage and other nonsewage liquids and rainwater shall be drained from point of discharge to disposal according to law.

Sewage Disposal

All liquid waste, including sewage, generated by a food establishment, shall be disposed of in an approved manner into either a public sewer system or to an approved on-site sewage disposal system.

Sewage means liquid waste containing animal or vegetable matter in suspension or solution and may include liquids containing chemicals in solution.

**NEBRASKA FOOD CODE,
Revised April, 2003**

**LMC 24.10.330 Section 6.2.6 Added;
Grease Interceptors.**

Section 6.2.6 of the National Standard Plumbing Code is amended to read as follows: 6.2.6 Grease Interceptors. Grease interceptors shall be required in all commercial, industrial, educational, institutional, and public occupancies which prepare and/or cook food containing grease. Grease, as herein defined, shall mean animal fat, vegetable shortening, and other oily matter used for the purpose of and resulting in the activity of cooking or preparing food. A grease trap is not required for individual dwelling units. Grease interceptors, in special cases, may be exempt from the above requirements upon written documentation of grease-free cooking or food preparation and such documentation is approved by the Administrative Authority prior to the installation of any plumbing materials. Grease interceptor location and sizing shall be approved by the Administrative Authority prior to installation. Grease interceptors shall be installed on the outside of the building whenever such installation is feasible. Sizing shall be determined by the Administrative Authority on the basis of internal guidelines. (Ord. 16087 §66; March 23, 1992).

5-402.10 Establishment Drainage System.

Food establishment drainage systems, including grease traps, that convey sewage shall be designed and installed as specified under ¶ 5-202.11(A).

5-402.12 Grease Trap.

If used, a grease trap shall be located to be easily accessible for cleaning, operation and maintenance.

Grease Interceptors

In Lincoln, grease interceptors (commonly referred to as grease traps) are required for most food service establishments. A facility which does not generate grease may seek a waiver of the city's plumbing code by written appeal to the Department of Building and Safety.

Establishments that lack a separate food preparation sink may use the warewashing sink for such purpose, if the food preparation compartment is connected to the grease interceptor via an air gap and properly trapped waste line (see **3-Compartment Sinks**).

Where interceptors are required, they should be installed outside the building, when possible. If they need to be located inside the facility, they must be accessible for cleaning and maintenance.

**4-204.119 Warewashing Sinks and
Drainboards, Self-Draining.**

Sinks and drainboards of warewashing sinks and machines shall be self-draining.

**4-301.12 Manual Warewashing, Sink
Compartment Requirements.**

(A) Except as specified in ¶ (C) of this section, a sink with at least 3 compartments shall be provided for manually washing, rinsing, and sanitizing equipment and utensils.

(B) Sink compartments shall be large enough to accommodate immersion of the largest equipment and utensils. If equipment or utensils are too large for the warewashing sink, a warewashing machine or alternative equipment as specified in ¶ (C) of this section shall be used.

(C) Alternative manual warewashing equipment may be used when there are special cleaning needs or constraints and its use is approved. Alternative manual warewashing equipment may include:

- (1) High-pressure detergent sprayers;
- (2) Low- or line-pressure spray detergent foamers;
- (3) Other task-specific cleaning equipment;
- (4) Brushes or other implements;
- (5) Removed or
- (6) Receptacles that substitute for the compartments of a multi-compartment sink.

4-301.13 Drainboards.

Drainboards, utensil racks, or tables large enough to accommodate all soiled and cleaned items that may accumulate during hours of operation shall be provided for necessary utensil holding before cleaning and after sanitizing.

**6-301.13 Handwashing Aids and Devices,
Use Restrictions.**

A sink used for food preparation or utensil washing, or a service sink or curbed cleaning facility used for the disposal of mop water or similar wastes, may not be provided with the handwashing aids and devices required for a handwashing lavatory as specified in §§ 6-301.11, 6-301.12, and ¶ 5-501.16 (C).

3- Compartment Sinks

Where required, three-compartment sinks shall be of stainless steel construction with dual integral stainless steel drainboards meeting current National Sanitation Foundation (NSF) standards. The sink must be capable of accommodating the largest utensil to be washed. The recommended minimum compartment size should be at least 18" x 18" x 12" deep. The drainboards should be as large as the largest sink compartment. The recommended minimum size is 18" x 18".

A three-compartment sink used for dishwashing only, must drain to a grease interceptor according to Lincoln Plumbing Code (see **Sewage Disposal** and **Grease Interceptor**). If the three-compartment sink is also used for food preparation, the third compartment's waste pipe shall be indirectly connected to the grease interceptor via an air gap and properly trapped waste line, according to the plumbing code.

Additional three-compartment sinks must be installed within each separate section of a large food establishment which handles unpackaged foods, i.e., deli, meat, bakery, sushi bars, oyster bars, liquor bars, etc.

Hot and cold water supply valves must be able to provide water to all sink compartments. This is normally accomplished through a movable faucet neck, however two or more sets of valves may be installed on larger sinks, and will speed the filling process.

When a sink is installed next to a wall, a metal "backsplash" extending up the wall at least eight (8) inches should be formed as an integral part of the sink. Provide a water-proof seal between sink backsplash and wall, using approved food-grade sealers. See **Walls** for more information. Sink installations must not have exposed screws or bolts.

Each sink should have a drain valve. Drain plugs are not recommended, but may be used where valves will not fit due to drain height or space constraints. Drain line diameters should be sized such that emptying all sinks while they are full, will not overflow the receiving floor sink.

Chemicals such as detergent and sanitizer may be plumbed to the sink water supply fixture using an aspirator device, if an approved backflow prevention device is installed and the sink is used for dishwashing only. Where food is being prepared, it is recommended that chemicals not be aspirated using the main sink water supply.

Do not install soap or towel dispensers at 3-compartment sinks. Handwashing supplies are to be installed at handwashing sinks.

**NEBRASKA FOOD CODE,
Revised April, 2003**

4-204.113 WAREWASHING Machine, Data Plate Operating Specifications.

A warewashing machine shall be provided with an easily accessible and readable data plate affixed to the machine by the manufacturer that indicates the machine's design and operating specifications including the:

- (A) Temperatures required for washing, rinsing, and sanitizing;
- (B) Pressure required for the fresh water sanitizing rinse unless the machine is designed to use only a pumped sanitizing rinse; and
- (C) Conveyor speed for conveyor machines or cycle time for stationary rack machines.

4-204.114 Warewashing Machines, Internal Baffles.

Warewashing machine wash and rinse tanks shall be equipped with baffles, curtains, or other means to minimize internal cross contamination of the solutions in wash and rinse tanks.

4-501.110 Mechanical Warewashing Equipment, Wash Solution Temperature.

(A) The temperature of the wash solution in spray type warewashers that use hot water to sanitize may not be less than:

- (1) For a stationary rack, single temperature machine, 74°C (165°F);
- (2) For a stationary rack, dual temperature machine, 66°C (150°F);
- (3) For a single tank, conveyor, dual temperature machine, 71°C (160°F); or
- (4) For a multitank, conveyor, multitemperature machine, 66°C (150°F).

(B) The temperature of the wash solution in spray-type warewashers that use chemicals to SANITIZE may not be less than 49°C (120°F).

4-501.112 Mechanical Warewashing Equipment, Hot Water Sanitization Temperatures.

(A) Except as specified in ¶ (B) of this section, in a mechanical operation, the temperature of the fresh hot water sanitizing rinse as it enters the manifold may not be more than 90°C (194°F), or less than:

- (1) For a stationary rack, single temperature machine, 74°C (165°F); or
- (2) For all other machines, 82°C (180°F).

(B) The maximum temperature specified under ¶ (A) of this section, does not apply to the high pressure and temperature systems with wand-type, hand-held, spraying devices used for the in-place cleaning and sanitizing of equipment such as meat saws.

4-501.113 Mechanical Warewashing Equipment, Sanitization Pressure.

The flow pressure of the fresh hot water sanitizing rinse in a warewashing machine may not be less than 100 kilopascals (15 pounds per square inch) or more than 170 kilopascals (25 pounds per square inch) as measured in the water line immediately downstream or upstream from the fresh hot water sanitizing rinse control valve.

4-204.115 Warewashing Machines, Temperature Measuring Devices.

A warewashing machine shall be equipped with a temperature measuring device that indicates the temperature of the water:

- (A) In each wash and rinse tank; and
- (B) As the water enters the hot water sanitizing final rinse manifold or in the chemical sanitizing solution tank.

4-204.118 Warewashing Machines, Flow Pressure Device.

(A) Warewashing machines that provide a fresh hot water sanitizing rinse shall be equipped with a pressure gauge or similar device such as a transducer that measures and displays the water pressure in the supply line immediately before entering the warewashing machine; and

(B) If the flow pressure measuring device is upstream of the fresh hot water sanitizing rinse control valve, the device shall be mounted in a 6.4 millimeter or one-fourth inch Iron Pipe Size (IPS) valve.

(C) Paragraphs (A) and (B) of this section do not apply to a machine that uses only a pumped or recirculated sanitizing rinse.

Dishwashing Machines

There are two general types of mechanical dishmachines in common use today. They use either high temperature water or a chlorine solution for the final sanitizing rinse.

Spray type dishwashers and glasswashers which are designed for a hot water sanitizing rinse shall be provided with a booster heater that meets the requirements of NSF Standard No. 5, or be connected to an approved recirculating water system which is capable of maintaining the rinse water at not less than 180°F.

High temperature dishwashers require an approved exhaust hood.

Dishwashing machines should have two (2) integral stainless steel drainboards at least 18" long, one for soiled utensils and one for the clean utensils to air dry. The drainboards shall be sloped and drained to an approved waste receptor. Dishwashers and glasswashers cannot share the three-compartment sink's drainboard.

Dishmachines must also be provided with thermometers and pressure gauges to indicate the proper water flow pressures, and temperatures. Do not use mercury thermometers in dishmachines.

When a dishmachine is used in a food establishment, an alternate method for dishwashing should be provided for use during breakdowns, service, and repair. One of the following should be provided:

- A 3-compartment sink within the area or an adjacent kitchen.
- A "backup" glass washer.
- A dishwasher in an adjacent kitchen.

Spray type dishwashing and glasswashing machines which are designed for a chemical sanitizing rinse shall be capable of maintaining the rinse water at a temperature in accordance with its NSF listing. (NSF Standard #3). The operating specifications must be listed on a data plate attached in a viewable location on the machine.

Provide sanitizing testing equipment or test strips and materials to adequately measure applicable chemical sanitizer at the dishwasher/glasswasher. The use of a maximum registering thermometer is recommended for high temperature dishmachines.

**NEBRASKA FOOD CODE,
Rev April, 2003**

6-201.17 Walls and Ceilings, Attachments.

(A) Except as specified in ¶ (B) of this section, attachments to walls and ceilings such as light fixtures, mechanical room ventilation system components, vent covers, wall mounted fans, decorative items, and other attachments shall be easily cleanable.

(B) In a consumer area, wall and ceiling surfaces and decorative items and attachments that are provided for ambiance need not meet this requirement if they are kept clean.

6-202.12 Heating, Ventilating, Air Conditioning System Vents.

Heating, ventilating, and air conditioning systems shall be designed and installed so that make-up air intake and exhaust vents do not cause contamination of food, food-contact surfaces, equipment, or utensils.

6-304.11 Mechanical.

If necessary to keep rooms free of excessive heat, steam, condensation, vapors, obnoxious odors, smoke, and fumes, mechanical ventilation of sufficient capacity shall be provided.

6-501.14 Cleaning Ventilation Systems, Nuisance and Discharge Prohibition.

(A) Intake and exhaust air ducts shall be cleaned and filters changed so they are not a source of contamination by dust, dirt, and other materials.

(B) If vented to the outside, ventilation systems may not create a public health nuisance or unlawful discharge.

Ventilation

Ventilation is necessary to remove smoke, fumes, and obnoxious odors in all areas of a food service establishment. Mechanical exhaust systems are required above cooking equipment that atomize grease, create heat, fumes, or odors, or produce vapors, and over hot water sanitizing dishwashing machines (**see Exhaust Hoods.**)

Adequate ventilation shall be provided to maintain the comfort level of employees and ensure reasonable shelf life of the food in storage.

If ventilation is provided using exterior doors and windows, they must be screened with insect-proof materials. Exterior doors must be self-closing in order to keep pests out. Exterior doors and windows must be tight closing and have proper weatherstripping and thresholds in place to keep pests from entering the building.

In areas where doors are left open for prolonged periods, or opened and closed frequently and where screening is not practical, the use of air curtains is recommended. Air curtains are mechanical devices which force a strong current of air downward over the door opening when activated. The air current is difficult for flying insects to penetrate.

Heating and air conditioning registers and vents should not be located directly over food preparation or storage locations. When determining location for cold air returns, avoid dusty locations such as bakery preparation areas and dough mixers.

Bathrooms and employee locker/dressing rooms need to be mechanically ventilated to the outside. Power vents should be activated by the same switch as lighting.

**NEBRASKA FOOD CODE,
Revised April, 2003**

4-202.18 Ventilation Hood Systems, Filters.

Filters or other grease extracting equipment shall be designed to be readily removable for cleaning and replacement if not designed to be cleaned in place.

4-204.11 Ventilation Hood Systems, Drip Prevention.

Exhaust ventilation hood systems in food preparation and warewashing areas including components such as hoods, fans, guards, and ducting shall be designed to prevent grease or condensation from draining or dripping onto food, equipment, utensils, linens, and single-service and single-use articles.

4-301.14 Ventilation Hood Systems, Adequacy.

Ventilation hood systems and devices shall be sufficient in number and capacity to prevent grease or condensation from collecting on walls and ceilings.

6-201.17 Walls and Ceilings, Attachments.

(A) Except as specified in ¶ (B) of this section, attachments to walls and ceilings such as light fixtures, mechanical room ventilation system components, vent covers, wall mounted fans, decorative items, and other attachments shall be easily cleanable.

(B) In a consumer area, wall and ceiling surfaces and decorative items and attachments that are provided for ambiance need not meet this requirement if they are kept clean.

6-202.12 Heating, Ventilating, Air Conditioning System Vents.

Heating, ventilating, and air conditioning systems shall be designed and installed so that make-up air intake and exhaust vents do not cause contamination of food, food-contact surfaces, equipment, or utensils.

6-501.14 Cleaning Ventilation Systems, Nuisance and Discharge Prohibition.

(A) Intake and exhaust air ducts shall be cleaned and filters changed so they are not a source of contamination by dust, dirt, and other materials.

(B) If vented to the outside, ventilation systems may not create a public health hazard or unlawful discharge.

6-304.11 Mechanical.

If necessary to keep rooms free of excessive heat, steam, condensation, vapors, obnoxious odors, smoke, and fumes, mechanical ventilation of sufficient capacity shall be provided.

Exhaust Hoods

Mechanical exhaust ventilation shall be required at or above all equipment that releases grease, smoke, steam, vapors, heat or odors. Pieces of equipment include ranges, griddles, ovens, deep fat fryers, barbecues, rotisseries and high temperature dish washing machines or similar equipment.

All hoods, ducts, and exhaust outlets shall be installed in accordance with the Lincoln Heating, Ventilating and Cooling Code, LMC 25.03. All hoods shall comply with the standards of an ANSI accredited certification program and be designed, constructed and installed in conformance with the National Fire Protection Association Bulletin #96 (The Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations), and other applicable fire safety codes.

A **Type I Hood** is a kitchen hood for collecting and removing grease and smoke. They shall be equipped with approved grease filters or grease extractors designed for that specific purpose.

A **Type II Hood** is a general kitchen hood for collecting and removing steam, vapors, heat or odors.

Canopy-type hoods should not be more than seven (7) feet above the floor and shall not be more than 4 feet above the cooking surface. The hood should overhang or extend a horizontal distance not less than six (6) inches beyond the outer edges of the cooking equipment to the inner lip of the hood on all open sides. It shall have grease troughs or drip pans that are easily cleanable. Hoods shall be flashed with metal to the ceiling and adjacent walls. Walls at exhaust hood installations should be paneled with stainless steel or ceramic tile from the top of the cove base to the underside of the exhaust hood. All joints and seams shall be sealed, welded or soldered for ease of cleaning.

Non-canopy-type (high velocity) hoods: Non-canopy-type hoods will be approved providing they are constructed to be easily cleanable and they comply with the minimum exhaust air velocity requirements. Shielding at the ends of the hood may be necessary to prevent interference from cross drafts.

Make-up air supply shall be provided at least equal to that amount which is mechanically exhausted and inter-connected by a single control switch. Windows and doors shall not be used for the purpose of providing make-up air.

Make up air intakes must be screened (bird screen) and filtered to prevent the entrance of dust, dirt, insects and other contaminating material. Where the introduction of make up air will cause condensation, drafting, or interfere with the exhaust or vapor capture efficiency of the hood, the make up air must be tempered. Tempering of makeup air may be necessary in winter months.

Galvanized metal is not an accepted material for food service hoods due to corrosion.

Food heating or warming devices, cheese melters, etc., that are installed above other equipment beneath an exhaust hood may create an air flow obstruction to proper ventilation of the basic equipment for which the hood ventilation system is designed. The design, construction and installation of such warming devices under a hood are subject to evaluation and approval by LLCHD prior to installation.

2-301.15 Where to Wash.

Food employees shall clean their hands in a handwashing lavatory or approved automatic handwashing facility and may not clean their hands in a sink used for food preparation or warewashing, or in a service sink or a curbed cleaning facility used for the disposal of mop water and similar liquid waste.

5-202.11 Approved System and Cleanable Fixtures.*

(A) A plumbing system shall be designed, constructed, and installed according to law.

(B) A plumbing fixture such as a handwashing facility, toilet, or urinal shall be easily cleanable.

5-202.12 Handwashing Facility, Installation.

(A) A handwashing lavatory shall be equipped to provide water at a temperature of at least 38° C (100° F) through a mixing valve or combination faucet.

(B) A steam mixing valve may not be used at a handwashing lavatory.

(C) A self-closing, slow-closing, or metering faucet shall provide a flow of water for at least 15 seconds without the need to reactivate the faucet.

(D) An automatic handwashing facility shall be installed in accordance with manufacturer's instructions.

5-203.11 Handwashing Facilities.*

(A) Except as specified in ¶¶ (B) and (C) of this section, at least 1 handwashing lavatory, a number of handwashing lavatories necessary for their convenient use by employees in areas specified under § 5-204.11, and not fewer than the number of handwashing lavatories required by law shall be provided.

(B) If approved and capable of removing the types of soils encountered in the food operations involved, automatic handwashing facilities may be substituted for handwashing lavatories in a food establishment that has at least one handwashing lavatory.

(C) If approved, when food exposure is limited and handwashing lavatories are not conveniently available, such as in some mobile or temporary food establishments or at some vending machine locations, employees may use chemically treated towelettes for handwashing.

5-204.11 Handwashing Facilities.*

A handwashing facility shall be located:

(A) To allow convenient use by employees in food preparation, food dispensing, and warewashing areas; and

(B) In, or immediately adjacent to, toilet rooms.

6-301.11 Handwashing Cleanser, Availability.

Each handwashing lavatory or group of 2 adjacent lavatories shall be provided with a supply of hand cleaning liquid, powder, or bar soap.

6-301.12 Hand Drying Provision.

Each handwashing lavatory or group of adjacent lavatories shall be provided with:

(A) Individual, disposable towels;

(B) A continuous towel system that supplies the user with a clean towel; or

(C) A heated-air hand drying device.

Handwashing Facilities

Handwashing sinks are required at any location where food is prepared or served, or where equipment or utensils are washed and sanitized.

Handwashing sinks shall be provided within the toilet rooms. Additional lavatories may be required in food preparation or utensil washing area which are more than 25' from a lavatory or when the food preparation areas or utensil washing facilities are located in a separate room. A bar facility may have one compartment on either end of a four-compartment sink designated as a handwashing sink.

Stainless steel sinks are recommended because of their cleanability and durability. Sink basins should be large enough to accommodate handwashing, but small enough to discourage use as a food preparation sink.

Lavatory facilities shall include hot and cold running water supplied through a combination faucet or tempered water, sanitary towels or approved hand drying devices, and soap. The use of bar soap is not recommended.

One should be able to operate the faucet without contaminating fingertips when turning the water off. Suggested fixtures include foot valves, knee valves, photoelectric valves, single lever faucets, or wing blade handles.

Any self-closing or metering faucet should be designed to provide a flow of water for at least 15 seconds without the need to reactivate the faucet.

Effective splash guard protection is required if sinks are located within 18 inches of adjoining food, food contact surfaces, or utensil washing and storage area surfaces. Splash guards shall not hinder access to the lavatory. **(see Nebraska Food Code reference 3-305.11)**

Handwashing areas shall remain free of storage, shall be used exclusively for hand washing and shall be kept clean and in good repair.

**NEBRASKA FOOD CODE,
Revised April, 2003**

81-2,272.31 Pressure

Except in response to a temporary interruption of a water supply in the food establishment, any food establishment which is not a mobile food unit or temporary food establishment shall:

(A) Have water under pressure provided to all fixtures, equipment, and nonfood equipment that are required to use water:

(B) Receive water through the use of an approved water main;

(C) Have a permanent plumbing system; and

(D) Have at least one toilet which is permanent, convenient and accessible.

6-402.11 Convenience and Accessibility.

Toilet rooms shall be conveniently located and accessible to employees during all hours of operation.

5-202.11 Approved System and Cleanable Fixtures.*

(A) A plumbing system shall be designed, constructed, and installed according to law.

(B) A plumbing fixture such as a handwashing lavatory, toilet, or urinal shall be easily cleanable.

6-202.14 Toilet Rooms, Enclosed.

A toilet room located on the premises shall be completely enclosed and provided with a tight-fitting and self-closing door except that this requirement does not apply to a toilet room that is located outside a food establishment and does not open directly into the food establishment such as a toilet room that is provided by the management of a shopping mall.

5-204.11 Handwashing Facilities.*

A handwashing facility shall be located:

(A) To allow convenient use by employees in food preparation, food dispensing, and warewashing areas; and

(B) In, or immediately adjacent to, toilet rooms.

6-301.11 Handwashing Cleanser, Availability.

Each handwashing lavatory or group of 2 adjacent lavatories shall be provided with a supply of hand cleaning liquid, powder, or bar soap.

6-301.12 Hand Drying Provision.

Each handwashing lavatory or group of adjacent lavatories shall be provided with:

(A) Individual, disposable towels;

(B) A continuous towel system that supplies the user with a clean towel; or

(C) A heated-air hand drying device.

6-301.20 Disposable Towels, Waste Receptacle.

A handwashing lavatory or group of adjacent lavatories that is provided with disposable towels shall be provided with a waste receptacle as specified under ¶ 5-501.16(C).

5-501.17 Toilet Room Receptacle, Covered.

A toilet room used by females shall be provided with a covered receptacle for sanitary napkins.

6-302.11 Toilet Tissue Availability

A supply of toilet tissue shall be available at each toilet.

Toilet Facilities

Toilet facilities shall be provided within each food establishment, convenient for the employees. Toilet facilities shall be so situated that patrons do not pass through food preparation, food storage or utensil washing areas when they are allowed access to the toilet facilities.

Toilet rooms must comply with the requirements of the [Americans with Disabilities Act](#).

The floors, walls and ceilings shall have surfaces that are smooth, nonabsorbent, and easily cleanable (see **Floors, Walls, and Ceilings**). A floor sloped to a drain makes clean-ups much easier and limits damage, should a fixture leak or fail. Carpeting is not allowed in restrooms.

Consider the use of wall mounted (cantilevered) toilets in restrooms. These fixtures make floor cleanup much easier.

Handwashing sinks shall be provided within the toilet rooms (see **Handwashing Sinks**). The handwashing sinks shall be provided with hot and cold running water from a mixing type faucet.

Soap and sanitary towels in single-service, permanently installed dispensers, or hot air blowers shall be provided at the handwashing sinks. Toilet tissue shall be provided in a sanitary manner at each toilet.

Toilet rooms used by women must have a properly covered waste receptacle for disposal of feminine hygiene products.

The toilet rooms shall be provided with tight-fitting, self-closing doors. Every attempt should be made to make doors open outward from the restroom, so that hand contact of handles or doorknobs is not necessary when exiting.

All toilet rooms shall be provided with ventilation approved by LLCHD. If mechanical ventilation is not provided, an openable, screened window will be required.

No shelving or provisions for food or food equipment storage shall be allowed in restrooms.

6-403.11 Designated Areas.

(A) Areas designated for employees to eat, drink, and use tobacco shall be located so that food, equipment, linens, and single-service and single-use articles are protected from contamination.

(B) Lockers or other suitable facilities shall be located in a designated room or area where contamination of food, equipment, utensils, linens, and single-service and single-use articles can not occur.

6-305.11 Designation.

(A) Dressing rooms or dressing areas shall be designated if employees routinely change their clothes in the establishment.

(B) Lockers or other suitable facilities shall be provided for the orderly storage of employees' clothing and other possessions.

6-501.110 Using Dressing Rooms and Lockers.

(A) Dressing rooms shall be used by employees if the employees regularly change their clothes in the establishment.

(B) Lockers or other suitable facilities shall be used for the orderly storage of employee clothing and other possessions.

6-202.111 Private Homes and Living or Sleeping Quarters, Use Prohibition.

A private home, a room used as living or sleeping quarters, or an area directly opening into a room used as living or sleeping quarters may not be used for conducting food establishment operations.

6-202.112 Living or Sleeping Quarters, Separation.

Living or sleeping quarters located on the premises of a food establishment such as those provided for lodging registration clerks or resident managers shall be separated from rooms and areas used for food establishment operations by complete partitioning and solid self-closing doors.

Dressing & Locker Rooms / Personal Care Item Storage

A designated area with lockers, separate from toilets, food storage or food preparation areas, shall be provided to store outer garments, personal belongings, and other personal care items.

When employees change their clothes and store their outer garments on the premises, a change room(s) should be provided that is large enough to accommodate a standard locker for each employee per shift. Clothing change rooms/areas should not be used as an office or for other food establishment activities.

Exhaust and make-up ventilation shall be provided for each change room.

Food service storage shelves are not allowed in change rooms. If space requirements dictate that lockers or designated areas are located in areas near food service items, they should be located below and away from food service storage areas.

Laundered linens, and single use items packaged or stored in a cabinet, may be kept in a locker room or change room, provided the room has no toilet facilities.

Living or sleeping quarters located on the premises must be separated from the food establishment areas by complete partitioning and solid, self-closing doors.

5-501.10 Indoor Storage Area.

If located within the food establishment, a storage area for refuse, recyclables, and returnables shall meet the requirements specified under §§ 6-101.11, 6-201.11-6-201.18, 6-202.15, and 6-202.16.

5-501.11 Outdoor Storage Surface.

An outdoor storage surface for refuse, recyclables, and returnables shall be constructed of nonabsorbent material such as concrete or asphalt and shall be smooth, durable, and sloped to drain.

5-501.12 Outdoor Enclosure.

If used, an outdoor enclosure for refuse, recyclables, and returnables shall be constructed of durable and cleanable materials.

5-501.13 Receptacles.

(A) Except as specified in ¶ (B) of this section, receptacles and waste handling units for refuse, recyclables, and returnables and for use with materials containing food residue shall be durable, cleanable, insect-and rodent-resistant, leakproof, and nonabsorbent.

(B) Plastic bags and wet strength paper bags may be used to line receptacles for storage inside the food establishment, or within closed outside receptacles.

5-501.15 Outside Receptacles.

(A) Receptacles and waste handling units for refuse, recyclables, and returnables used with materials containing food residue and used outside the food establishment shall be designed and constructed to have tight-fitting lids, doors, or covers.

(B) Receptacles and waste handling units for recyclables such as an on-site compactor shall be installed so that accumulation of debris and insect and rodent attraction and harborage are minimized and effective cleaning is facilitated around and, if the unit is not installed flush with the base pad, under the unit.

5-501.16 Storage Areas, Rooms, and Receptacles, Capacity and Availability.

(A) An inside storage room and area and outside storage area and enclosure, and receptacles shall be of sufficient capacity to hold refuse, recyclables, and returnables that accumulate.

(B) A receptacle shall be provided in each area of the food establishment or premises where refuse is generated or commonly discarded, or where recyclables or returnables are placed.

(C) If disposable towels are used at handwashing lavatories, a waste receptacle shall be located at each lavatory or group of adjacent lavatories.

Garbage & Refuse Facilities

Garbage or refuse storage rooms shall be constructed of easily cleanable, nonabsorbent, washable materials and shall be insect-proof and rodent-proof.

Garbage chutes or trash doors located on exterior walls need to be of insect and rodent-proof construction. The wall around the chute must be covered with a non-absorbent, durable material such as FRP.

Garbage and refuse containers, trash and grease dumpsters, and compactor systems located outside shall be stored on or above a smooth surface of nonabsorbent material such as 4" sealed concrete. These items should be located well away from the back door of the facility as they tend to attract pests. Similarly, they should be located so that they do not create a nuisance for neighbors.

Garbage and refuse containers must be pest-proof and leakproof, and have tight-fitting lids or covers. The containers must be sized to hold all of the wastes generated at the facility between pickups. Remember that frequency of garbage pickups may be affected by bad weather and holidays. It is far better to have too much garbage storage, than too little.

A solid fence, block or brick wall, or other suitable three or four sided enclosure is recommended to surround the dumpster pad area. Use construction materials which are smooth, durable and easily cleanable. An enclosure will improve aesthetics, decrease windblown litter, and reduce pests problems.

A gate or door that locks will deter illegal dumping. Make sure the approach to the dumpster is easily accessible by the garbage hauler. The area needs to be well lit for employee safety during evening hours.

Refrigerated waste storage areas are recommended for fish markets. Fish wastes are very odoriferous on hot days.

Special grease handling equipment may be necessary if the operation generates large amounts of waste cooking oils. Grease spills from open buckets are difficult to clean up. Employees could suffer from severe burns if they spill while dumping hot oil .

5-501.19 Storage Areas, Redeeming Machines, Receptacles and Waste Handling Units, Location.

(A) An area designated for refuse, recyclables, returnables, and, except as specified in ¶ (B) of this section, a redeeming machine for recyclables or returnables shall be located so that it is separate from food, equipment, utensils, linens, and single-service and single-use articles and a public health hazard or nuisance is not created.

(B) A redeeming machine may be located in the packaged food storage area or consumer area of a food establishment if food, equipment, utensils, linens, and single-service and single-use articles are not subject to contamination from the machines and a public health hazard or nuisance is not created.

(C) The location of receptacles and waste handling units for refuse, recyclables, and returnables may not create a public health hazard or nuisance or interfere with the cleaning of adjacent space.

5-501.110 Storing Refuse, Recyclables, and Returnables.

Refuse, recyclables, and returnables shall be stored in receptacles or waste handling units so that they are inaccessible to insects and rodents.

5-501.112 Outside Storage Prohibitions.

(A) Except as specified in ¶ (B) of this section, refuse receptacles not meeting the requirements specified under ¶ 5-501.13(A) such as receptacles that are not rodent-resistant, unprotected plastic bags and paper bags, or baled units that contain materials with food residue may not be stored outside.

(B) Cardboard or other packaging material that does not contain food residues and that is awaiting regularly scheduled delivery to a recycling or disposal site may be stored outside without being in a covered receptacle if it is stored so that it does not create a rodent harborage problem.

5-501.113 Covering Receptacles.

Receptacles and waste handling units for refuse, recyclables, and returnables shall be kept covered:

(A) Inside the food establishment if the receptacles and units:

- (1) Contain food residue and are not in continuous use; or
- (2) After they are filled; and

(B) With tight-fitting lids or doors if kept outside the food establishment.

5-501.114 Using Drain Plugs.

Drains in receptacles and waste handling units for refuse, recyclables, and returnables shall have drain plugs in place.

Recyclable Storage

LLCHD encourages the recycling of reusable resources such as paper, glass, metals, plastics, and oils. Dedicated equipment and designated storage locations are required in order to recycle in a sanitary manner, which prevents the attraction of pests and the contamination of food or food service items.

Keep recyclables in tightly covered pest-proof receptacles. Baled corrugates (cardboard) may be kept outside without cover, provided it does not become a rodent harborage problem.

Empty glass and aluminum beverage containers kept indoors for recycling shall be kept covered at all times to prevent fruit fly infestations. Rinsing containers is recommended.

Waste cooking oils should be screened of food debris before being emptied into an outdoor grease dumpster.

4-402.11 Fixed Equipment, Spacing or Sealing.

(A) Equipment that is fixed because it is not easily movable shall be installed so that it is:

- (1) Spaced to allow access for cleaning along the sides, behind, and above the equipment;
- (2) Spaced from adjoining equipment, walls, and ceilings a distance of not more than 1 millimeter or one thirty-second inch; or
- (3) Sealed to adjoining equipment or walls, if the equipment is exposed to spillage or seepage.

(B) Table-mounted equipment that is not easily movable shall be installed to allow cleaning of the equipment and areas underneath and around the equipment by being:

- (1) Sealed to the table; or
- (2) Elevated on legs as specified under ¶ 4-402.12(D).

4-402.12 Fixed Equipment, Elevation or Sealing.

(A) Except as specified in ¶¶ (B) and (C) of this section, floor-mounted equipment that is not easily movable shall be sealed to the floor or elevated on legs that provide at least a 15 centimeter (6 inch) clearance between the floor and the equipment.

(B) If no part of the floor under the floor-mounted equipment is more than 15 centimeters (6 inches) from the point of cleaning access, the clearance space may be only 10 centimeters (4 inches).

(C) This section does not apply to display shelving units, display refrigeration units, and display freezer units located in the consumer shopping areas of a retail food store, if the floor under the units is maintained clean.

(D) Except as specified in ¶ (E) of this section, table-mounted equipment that is not easily movable shall be elevated on legs that provide at least a 10 centimeter (4 inch) clearance between the table and the equipment.

(E) The clearance space between the table and table-mounted equipment may be:

- (1) 7.5 centimeters (3 inches) if the horizontal distance of the table top under the equipment is no more than 50 centimeters (20 inches) from the point of access for cleaning; or
- (2) 5 centimeters (2 inches) if the horizontal distance of the table top under the equipment is no more than 7.5 centimeters (3 inches) from the point of access for cleaning.

4-202.17 Kick Plates, Removable.

Kick plates shall be designed so that the areas behind them are accessible for inspection and cleaning by being:

- (A) Removable by one of the methods specified in Subparagraphs 4-202.11(A)(5) or capable of being rotated open; and
- (B) Removable or capable of being rotated open without unlocking equipment doors.

Food Equipment

All new and replacement equipment shall be commercial grade, equivalent to National Sanitation Foundation (NSF) standards. In the absence of NSF standards, equipment design, construction and installation is subject to approval by LLCHD.

During plan review submission, all equipment must be listed on an equipment schedule. This list must include the name of the manufacturer and the model number of the particular piece of equipment. For new equipment, specification sheets, known as "cut sheets", must be submitted with the plans. For used pieces of equipment, photographs may be requested. The method of installation must be included on the equipment schedule.

All display cases, counters, shelves, tables, refrigeration equipment, sinks and other equipment used in connection with the preparation, service and display of food, shall be made of non-toxic materials and so constructed and installed as to be easily cleanable.

Whenever possible, equipment should be mounted on approved castors or wheels to facilitate easy moving, cleaning, and flexibility of operation. Check with local fire safety and building codes to ensure that such installations are acceptable. Wheeled equipment requiring utility services should be provided with easily accessible quick-disconnects or the utility service lines should be flexible and of sufficient length to permit moving the equipment for cleaning.

All floor mounted equipment shall be placed on round metal legs at least six (6) inches high, or completely sealed in position on a base at least four (4) inches high with a continuously coved curb, or cantilevered from the wall in an approved manner. Legs shall contain no hollow open ends and be sealed to prevent harborage of pests.

Counter top equipment shall be provided with minimum four (4) inch high round metal legs unless the equipment can be readily moved (less than 30 lbs with no dimensions exceeding 36") by an employee for cleaning, or is sealed to the table or counter.

Equipment that butts against a wall must be joined to it and/or sealed in a manner to prevent liquid waste, dust and debris from collecting between the wall and the equipment. Side-by-side equipment must either be far enough apart to clean between or be sealed together with approved caulking materials, or have spreader plates installed to cover large gaps.

Food equipment, including ice makers and ice storage units, shall not be located under exposed or unprotected sewer lines, open stairwells or other sources of contamination.

3-305.11 Food Storage.

(A) Except as specified in ¶ (B) and (C) of this section, food shall be protected from contamination by storing the food:

- (1) In a clean, dry location;
- (2) Where it is not exposed to splash, dust, or other contamination; and
- (3) At least 15 cm (6 inches) above the floor.

(B) Food in packages and working containers may be stored less than 15 cm (6 inches) above the floor on case lot handling equipment as specified under § 4-204.122.

(C) Pressurized beverage containers, cased food in waterproof containers such as bottles or cans, and milk containers in plastic crates may be stored on a floor that is clean and not exposed to floor moisture.

3-305.12 Food Storage, Prohibited Areas.

Food may not be stored:

- (A) In locker rooms;
- (B) In toilet rooms;
- (C) In dressing rooms;
- (D) In garbage rooms;
- (E) In mechanical rooms;
- (F) Under sewer lines that are not shielded to intercept potential drips;
- (G) Under leaking water lines, including leaking automatic fire sprinkler heads, or under lines on which water has condensed;
- (H) Under open stairwells; or
- (I) Under other sources of contamination.

See **Floors, Walls, and Ceilings** for more Food Code references.

Dry Goods Storage

A dry storage area is a room or area designated for the storage of packaged or containerized bulk food that is not potentially hazardous and dry goods such as single service items. Dry goods are best kept at temperatures of 50 to 70 degrees F. They should be kept under a relative humidity of 50 to 60% to prevent bacterial growth and rusting of the cans.

The floor space required for dry food storage is generally a space equal to 25% of the food preparation area(s). A minimum of 100 square feet of floor space would be recommended for dry storage.

Shelving units should be a minimum of 18 inches in depth and at least three tiers high. Shelving must be constructed in an easily cleanable design of smooth metal or plastic. All shelves located below a counter or work surface should be set back at least 2 inches from the drip line of the surface above. All storage shelving and counters must have smooth and easily cleanable surfaces with no gaps.

Shelves should be a minimum of 1 inch away from the wall or sealed to the wall. Bottom shelves must be at least 6 inches above the floor with a clear unobstructed area below or be the upper surface of a completely sealed continuously coved 4 inch high curb. Legs used for support shall be smooth round metal legs. Particle board, plywood, or bare wood shelving is not acceptable.

Tracks or channels installed as sliding door guides for storage cabinets may not be recessed. A minimum 2 inches of the track must be removed from each end of the door guide to facilitate cleaning.

Electrical panels, large fire prevention system components or similar wall-mounted equipment shall not be installed in food storage rooms unless adequate approved provision is made to compensate for the space required for the installation.

Each department in a grocery store which handles unpackaged food, (i.e. deli, meat, produce, bakery, etc.), should provide its own dry food storage space within each area.

Bars and taverns require areas for beverage and bar supply storage. Liquor storage rooms must also have approved floors, walls and ceilings.

Storage rooms shall open into the food facility. Storage sheds must meet all facility requirements and be approved by LLCHD and Building and Safety.

Dry storage areas shall never be used to store employee personal items. **(See Dressing & Locker Rooms)**

4-101.111 Nonfood-Contact Surfaces.

Nonfood-contact surfaces of equipment that are exposed to splash, spillage, or other food soiling or that require frequent cleaning shall be constructed of a corrosion-resistant, nonabsorbent, and smooth material.

7-201.11 Separation.*

Poisonous or toxic materials shall be stored so they can not contaminate food, equipment, utensils, linens, and single-service and single-use articles by:

(A) Separating the poisonous or toxic materials by spacing or partitioning; and

(B) Locating the poisonous or toxic materials in an area that is not above food, equipment, utensils, linens, and single-service or single-use articles. This paragraph does not apply to equipment and utensil cleaners and sanitizers that are stored in warewashing areas for availability and convenience if the materials are stored to prevent contamination of food, equipment, utensils, linens, and single-service and single-use articles.

7-202.11 Restriction.*

(A) Only those poisonous or toxic materials that are required for the operation and maintenance of a food establishment, such as for the cleaning and sanitizing of equipment and utensils and the control of insects and rodents, shall be allowed in a food establishment.

(B) ¶ (A) of this section does not apply to packaged poisonous or toxic materials that are for retail sale.

7-301.11 Separation.*

Poisonous or toxic materials shall be stored and displayed for retail sale so they can not contaminate food, equipment, utensils, linens, and single-service and single-use articles by:

(A) Separating the poisonous or toxic materials by spacing or partitioning; and

(B) Locating the poisonous or toxic materials in an area that is not above food, equipment, utensils, linens, and single-service or single-use articles.

Chemical Storage

Chemicals within the establishment shall be stored, labeled and used properly so they cannot contaminate food, equipment, utensils, linens and single-service disposable items. This can be achieved by providing designated chemical storage locations separate from the food preparation and storage areas.

Storage shelves shall be smooth, non-absorbent and corrosion resistant. Chemicals should be on shelving close to the floor level (6 inches above floor.)

2-301.15 Where to Wash.

Food employees shall clean their hands in a handwashing lavatory or approved automatic handwashing facility and may not clean their hands in a sink used for food preparation or warewashing, or in a service sink or a curbed cleaning facility used for the disposal of mop water and similar liquid waste.

5-203.13 Service Sink.

At least 1 service sink or 1 curbed cleaning facility equipped with a floor drain shall be provided and conveniently located for the cleaning of mops or similar wet floor cleaning tools and for the disposal of mop water and similar liquid waste.

6-501.15 Cleaning Maintenance Tools, Preventing Contamination.*

Food preparation sinks, handwashing lavatories, and warewashing equipment may not be used for the cleaning of maintenance tools, the preparation or holding of maintenance materials, or the disposal of mop water and similar liquid wastes.

6-301.13 Handwashing Aids and Devices, Use Restrictions.

A sink used for food preparation or utensil washing, or a service sink or curbed cleaning facility used for the disposal of mop water or similar wastes, may not be provided with the handwashing aids and devices required for a handwashing lavatory as specified in §§ 6-301.11, 6-301.12, and 5-501.16(C).

6-501.16 Drying Mops.

After use, mops shall be placed in a position that allows them to air-dry without soiling walls, equipment, or supplies.

6-501.113 Storing Maintenance Tools.

Maintenance tools such as brooms, mops, vacuum cleaners, and similar items shall be:

(A) Stored so they do not contaminate food, equipment, utensils, linens, and single-service and single-use articles; and

(B) Stored in an orderly manner that facilitates cleaning the area used for storing the maintenance tools.

Janitorial Stations

All food handling facilities must have a janitorial station for general clean up activities. A janitorial station includes a mopsink area for storing necessary floor cleaning equipment and janitorial items. Include either a service sink or a curbed cleaning facility. Connect the basin or sink with a drain to the sanitary sewer. Provide hot and cold water, under pressure, with a mixing faucet and approved backflow protection. For ease of mopwater disposal, a floor mounted mopsink is recommended.

The walls adjacent to a janitorial station must be non-absorbent. The use of FRP (see Walls) is recommended. If ceramic tile is used, grout joints must be minimal and impregnated with waterproofing materials, due to the high humidity and potential to grow mold and mildew.

Janitorial stations should be conveniently placed for maintaining food service areas and should be separate from the food preparation and food storage areas. The janitorial basin or sink must be accessible for use during food service operations. More than one janitorial station may be necessary, depending on the size of the operation.

Other stationary equipment, such as water softeners or water filter systems may not obstruct the mop basin or sink. Hoses must be stored on hangers, and not in the sink.

Allow for space adjacent to the mop sink for storage of mop buckets. Install heavy-duty mop hooks that can support wet mops over the janitorial sink so that wet mops may drip dry into the sink basin.

Place chemical dispensing systems so they do not interfere with maintenance equipment storage or use. Install a separate water line for chemical cleaning systems and include appropriate backflow protection.

It is recommended that water heaters not be located over the mop basin, as doing so will limit the size and accessibility of the water heater, and it will not provide adequate clearance (80 inches) for the storage of wet mops.

4-301.15 Clothes Washers and Dryers.

(A) Except as specified in ¶ (B) of this section, if work clothes or linens are laundered on the premises, a mechanical clothes washer and dryer shall be provided and used.

(B) If on-premises laundering is limited to wiping cloths intended to be used moist, or wiping cloths are air-dried as specified under § 4-901.12, a mechanical clothes washer and dryer need not be provided.

4-401.11 Equipment, Clothes Washers and Dryers, and Storage Cabinets, Contamination Prevention.

(A) Except as specified in ¶ (B) of this section, equipment, a cabinet used for the storage of food, or a cabinet that is used to store cleaned and sanitized equipment, utensils, laundered linens, and single-service and single-use articles may not be located:

- (1) In locker rooms;
- (2) In toilet rooms;
- (3) In garbage rooms;
- (4) In mechanical rooms;
- (5) Under sewer lines that are not shielded to intercept potential drips;
- (6) Under leaking water lines including leaking automatic fire sprinkler heads or under lines on which water has condensed;
- (7) Under open stairwells; or
- (8) Under other sources of contamination.

(B) A storage cabinet used for linens or single-service or single-use articles may be stored in a locker room.

(C) If a mechanical clothes washer or dryer is provided, it shall be located so that the washer or dryer is protected from contamination and only where there is no exposed food; clean equipment, utensils, and linens; and unwrapped single-service and single-use articles.

4-803.11 Storage of Soiled Linens.

Soiled linens shall be kept in clean, nonabsorbent receptacles or clean, washable laundry bags and stored and transported to prevent contamination of food, clean equipment, clean utensils, and single-service and single-use articles.

4-803.12 Mechanical Washing.

(A) Except as specified in ¶ (B) of this section, linens shall be mechanically washed.

(B) In food establishments in which only wiping cloths are laundered as specified in ¶ 4-301.15(B), the wiping cloths may be laundered in a mechanical washer, a sink designated only for laundering wiping cloths, or a warewashing or food preparation sink that is cleaned as specified under § 4-501.14.

4-803.13 Use of Laundry Facilities.

(A) Except as specified in ¶ (B) of this section, laundry facilities on the premises of a food establishment shall be used only for the washing and drying of items used in the operation of the establishment.

(B) Separate laundry facilities located on the premises for the purpose of general laundering such as for institutions providing boarding and lodging may also be used for laundering food establishment items.

Laundry Facilities

Laundry facilities may be used within the establishment for the convenience of washing and drying items used in the operation of the establishment.

Laundry facilities shall be located separate from the food preparation and storage areas to prevent contamination of foods and utensils. Food service employees shall not handle soiled linens during food preparation.

Detergents shall be properly stored away from food, equipment, linens and single-service articles to prevent cross-contamination hazards. Dryers shall be vented to the outside and be insect and rodent proof.